Ford Motor Company

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James P. Vondale, Director
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NHTSA-00-8296-20

February 26, 2001

Stephen R. Kratzke
Associate Administrator, Safety Performance Standards
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Subject: **Consumer Information Regulations – Tire Identification and Recordkeeping, ANPRM. Docket No. NHTSA-2000-8296 (Fed. Reg. Vol. 65, No. 232, Pages 75222-75230, December 1, 2000)**

Dear Mr. Kratzke,

Ford Motor Company (Ford), with offices at the American Road, Dearborn, Michigan 48121, as a manufacturer and importer of motor vehicles, which includes the following brands - Ford, Aston Martin, Jaguar, Land Rover, Lincoln, Mazda, Mercury and Volvo, hereby submits the following comments in response to the Advanced Notice of Proposed Rulemaking (ANPRM) contained in Docket No. NHTSA-2000-8296 entitled "Consumer Information Regulations; Tire Identification and Recordkeeping" published in the Federal Register of December 1, 2000, (Volume 65, No. 232, Pages 75222-75230).

Recent tire recall efforts by Ford lead us to believe that vehicle manufacturers provide adequate information to consumers regarding proper inflation pressures, replacement tires and vehicle loading limits. In addition, Ford has begun to take the additional step of locating cold inflation pressures inside the fuel doors of many of our vehicles. Ford encourages NHTSA to further educate and motivate consumers regarding proper tire maintenance. In addition, the ease of identifying recalled tires should be improved to address future tire durability concerns in a timely manner.

One subject not touched upon in the ANPRM, is the difference in rated load carrying capacity of tires as published by the European Tyre and Rim Technical Organization (ETRTO) and by the North America Tire and Rim Association (T&RA). In general, for any given size of tires, the T&RA guidelines specify a lesser load rating than ETRTO. NHTSA must encourage ETRTO and T&RA to work together to resolve the confusion of conflicting ratings and provide common load ratings for the same tire size.

Section A – General Consumer Knowledge and Behavior/Availability of Information to Consumers
Q1)
Are consumers being given the information they need to maintain their tires properly, to determine how much weight (passengers plus cargo) they can safely place in their vehicles, and to identify tires that have been determined to be defective or noncompliant? What tire information is most important for consumers to have for safety and recall purposes?

A1)

Ford provides consumers with the information they need to maintain their tires using several sources. The owner's guide covers the use and replacement of tires, the need to check tire cold inflation pressures, tire maintenance and vehicle loading capabilities. In addition, customers are cautioned about the risks of tires that are underinflated or overloaded, including specifically that these conditions could affect a vehicle's handling and could cause the tire to fail suddenly, possibly resulting in a loss of vehicle control. As a convenience to consumers, "filling station information" is provided in the back of the owner's guide, which refers consumers to the certification label. Attachments I and II contain examples of information provided in owner guides for passenger cars and light trucks. Ford uses either the certification label or a separate tire pressure label to convey tire size, cold inflation pressure and loading information. Attachments III and IV contain examples of a vehicle certification label with tire pressure information included and an example of a separate tire pressure information label. Attachment V is a typical example of a Ford maintenance schedule that recommends the tires should be checked for wear and proper air pressure every month and that the tires should be checked for wear and rotated every 5,000 miles for optimal tire life. In separate camper/trailer towing guides, we repeat the need to check cold tire pressures, provide warnings about underinflated and overinflated tires and provide information about loading capacity. In addition, we recommend after traveling 50 miles while towing a trailer that the tire pressure be checked.

The most important information consumers need for safety purposes is the tire cold inflation pressure at which the vehicle was certified and the approved tire size when it is time to replace their tires. As mentioned above, this information is provided to consumers on the certification label. For recall purposes, consumers need the tire size and the Tire Identification Number (TIN), which are indicated on the tire itself

Q3)

Do consumers routinely use and correctly follow the guidance included in that tire information? For example, do they typically inflate their own tires? How often? To what level?

A3)

Ford warranty and marketing research conducted in 1994 and 1995 confirmed that consumers are aware of the need for tire maintenance, regardless of whether they perform that maintenance themselves. Consumers indicated that they know the need to check tire pressures, rotate tires and that the tires need to be in alignment. Many stated they checked their tire pressure on a regular basis. More than half of the vehicle owners surveyed were aware of the certification label on the vehicle. However only a third of the owners used the certification label for tire pressure information. The owner's guide was the most popular source for obtaining tire pressure information followed by the tire pressure information on the tire itself and the certification label on the vehicle. Vehicle owners are split between checking the tire pressure themselves and having it done for them. The majority of vehicle owners believe that in general tires should be inflated to between 31-33 psi with the overall distribution of responses falling within the range of 26-39 psi. This finding was confirmed with a recent survey of actual vehicle tire pressures with the resultant tire inflation pressure mean at 30 psi, regardless of the certification label tire pressure specification.

Q4)

What tire information do consumers want, how do they want it expressed, and where would they prefer to see that tire information located on their tires or in their vehicles? If any focus group studies have been conducted by manufacturers or other organizations regarding the consumers' needs in this area, should the agency use them to aid in assessing how to meet those needs? Should the agency supplement these studies by conducting its own focus group study? If so, what questions should be presented to the focus groups?

A4)

NHTSA should conduct a focus group to better understand consumer behavior. Prior to recent tire recalls, consumers simply wanted clear tire pressure information. Ford's recent experience demonstrates consumers also want to be able to easily read their TIN number to identify recalled tires. They are also interested in suggested ways to improve tire safety.

Some suggested focus group questions are:

- "Do you read your owners guide for tire care before using your new vehicle?"
- "How would you rate your understanding of the owner's guide tire information"?
- "Do you know what tire pressure you should use to inflate your tires?"
- "How often do you check your owner's guide for tire information?"
- "Where is the tire pressure information located on your vehicle?"
- "How do you determine what amount of load your vehicle can carry?"
- "If you were to add a substantial load to your vehicle, would you change your tire pressure?"

Section B – TIN Information: Location

Q5)

Based on the discussion in question 4, how should the location of the TIN be modified to make it easier for consumers to determine whether or not their tires are covered in a safety recall?

A5)

The TIN should be located on the outside of the tire even if this means putting it on both sides of blackwall tires. The TIN should be standardized by NHTSA with regards to font, letter size, space, embossed, raised letters, placement and location on sidewall, etc. This would provide consumers a consistent TIN location and level of readability.

Section B2 – TIN Information: Content and Readability

Q9)

Should all the information currently required in the TIN be retained or should the agency cease to require some of it? Should other information be required in the TIN or otherwise be required to show on the sidewalls? Would it be helpful for the plant location, manufacturer's name, date of manufacture or country to be shown on the sidewalls? Should the number format and type of symbols be revised? Should any of the information currently required in the TIN be deleted?

A9)

All of the information presently contained within the TIN should be retained, however NHTSA should require a standardized format and font height on the outside sidewall of the tire for consistency and readability. There is no need to add more information to the TIN.

Q10)

Should the optional TIN symbols be either prohibited or separated from the TIN to shorten it? Would this facilitate reading the TIN and identifying recalled tires?

A10)

The current optional symbols should remain on the tires. Ford uses these optional symbols to better enable the identification of the "specific" recipe or tire construction of the tire. This information could be important in distinguishing recalled tires from similar tires of the same brand and tire size and therefore we believe it should be required to be in the TIN by NHTSA.

Q11)

What type of changes to the lettering or numbering would make it easier to read the TIN? Should raised letters with contrasting colors be required? If not, should other methods be used to increase the TIN readability?

A11)

The TIN should be standardized by NHTSA in terms of font, letter size, space, embossed, raised letters, placement and location on sidewall, etc. This would provide consumers a consistent location and level of readability. Contrasting colors add needless complexity to tires and should not be required with the recommended changes to achieve TIN standardization.

Section C – Other Tire Labeling Information: Load Ratings

Q13)

Should the maximum load rating continue to be required on the tire? If the load rating were replaced by a load index number, would it be more or less effective in conveying tire load limits to consumers?

A13)

The maximum load rating should be removed from the tire because of the potential confusion to consumers. Ford believes that the certification label is the primary source of vehicle loading information and cold tire inflation pressure. In general, consumers do not have convenient access or familiarity with using load index tables. Nevertheless, the load index should remain a part of the tire size label for use when consumers replace their tires. Again, we would recommend that the maximum load rating be removed from the tire so that consumers will seek out the appropriate vehicle loading on the certification label.

Q15)

What assistance do tire retailers provide consumers in selecting a tire with the correct load rating or load index for their vehicle? Is this assistance provided to all customers or only those who ask about the rating or index? How much information do retailers provide to customers to ensure that they choose the right tire for their vehicle? Do retailers check the GVWR/GAWR to ensure the load capacity of the tire exceeds the GVWR/GAWR of the vehicle?

A15)

We cannot answer this question with regard to tire retailers however, Ford provides to customers the tire size information on the certification label and recommends that they replace their tires with tires having equivalent speed rating as identified on the certification label and in the owner's guide.

Q16)

When motorists load a light vehicle, how do they determine whether the vehicle is capable, given the tire pressure to safely carry the load? How frequently do they use the load rating information on the tires to make this determination? When they do use it, how do they do so? Do they make the determination correctly?

A16)

We do not have specific information regarding how consumers determine whether or not a vehicle is capable of carrying a load given a certain tire inflation pressure. However Ford does provide the maximum passenger and vehicle loading information at the recommended tire inflation pressure on the certification label.

Section C – Other Tire Labeling Information: Plies and Cord Materials

Q18)

The actual number of plies is labeled on both sidewalls and the generic name of cord materials are also indicated on the label. Should this information continue to be marked on the tire? What is the safety value of providing consumers with this information? How do they actually make use of this information? Should any descriptive information such as tire manufacturer's mileage warranty be added?

A18)

Ford does not believe that the number of plies or the generic name of cord materials is information that is useful to consumers or needed to increase tire safety. A tire manufacturer's mileage warranty may be useful as general consumer information, but is not required on the label to meet a safety need.

Section C – Other Tire Labeling Information: Tread Wear Indicator

Q19)

Should information be added to the label to inform consumers about the tread wear indicator and its purpose? If so, what information should be provided? Should markings be made on the sidewall to pinpoint the location of the tread wear indicator? If yes, what size and type of marking would be most effective?

A19)

Ford already provides detailed information on the tread wear indicator in our owner's guides using illustrative graphics. We believe this is a more effective way to communicate the tread wear indicator function and location to the consumer than requiring additional markings on the tire.

Section C – Other Tire Labeling Information: UTQGS

Q20)

What changes to the UTQGS rating should the agency consider to make the ratings more easily understood by consumers?

A20)

Ford owner's guides explain that the tire temperature grades are established for a tire that is properly inflated and not overloaded and that excessive speed, underinflation and/or excessive loading can cause heat buildup and possible tire failure. More consumer education by NHTSA regarding temperature grades and potential tire heat buildup under certain inflation or loading conditions would be useful to clarify the importance of this information.

Q21)

UTQGS applies to passenger cars. Should UTQGS be required on other types of tires, especially ones used on SUV's and MPV's? Should UTQGS be applied to LT-metric tires? Please be specific in your response and provide a basis for your answer.

A21)

NHTSA regulated the UTQGS information because they believed it was useful for customers, therefore the same information should be considered for LT-metric tires as well.

Section C – Other Tire Labeling Information: Speed Rating

Q22)

Should steps be taken to increase the likelihood that consumers purchase replacement tires with the same speed rating as the original tires? If so, what steps should be taken and why? Do tire retailers ensure that consumers have the correct speed rating for their vehicles?

A22)

Ford's certification labels and owner's guides instruct consumers to replace their tires with a tire having the same speed rating. We agree that actions to increase the likelihood that consumers will purchase replacement tires with the same speed rating are desirable, but we do not have specific suggestions as to how that could be accomplished within the tire retail environment.

Section C – Other Tire Labeling Information: Tire Inflation Pressure

Q25)

What other pertinent tire information aside from the tire pressure should be considered for the label? What other locations such as the inside of the fuel door should be considered to ensure that the tire information contained on the label is conspicuous to motorists and why?

A25)

Ford believes that the tire size, speed rating, cold inflation pressure and load capacity should be on the certification label. We are beginning to add the cold tire inflation pressure on the inside of the fuel door on all trucks and selected passenger cars in an effort to reiterate this information to consumers.

Q26)

Should the maximum cold inflation pressure value and the maximum load rating provided on the sidewall be removed? What would be the potential safety impact? If no inflation pressure value appeared on the tire, would consumers seek the manufacturer's recommended pressure on the glove compartment door, the door pillar or owner's manual?

A26)

Our consumer survey data shows that a number of consumers use the maximum tire inflation pressure on the tire before they would use the one on the certification label. Therefore, we recommend that the maximum inflation pressure be removed from the tire. Without the pressure information on the tire, Ford believes that consumers would look for the vehicle's certification label. Increasing consumer awareness with regard to the location of the certification label is the area where NHTSA has the greatest opportunity to make a difference in tire consumer information. The maximum load rating should also be removed because of the potential confusion to consumers as sited above in our answer to question 13. The certification label should be the primary source of cold tire inflation pressure and vehicle loading information for consumers.

Section C – Other Tire Labeling Information: Dissemination of Tire Safety Information

Q27)

What type of tire safety information should be provided? Where should it be presented so that it is easily noticed and understood? Should a tire inflation warning label be placed in a conspicuous location such as on the exterior of the glove box?

A27)

As stated previously, tire cold inflation pressure and tire size are critical elements of tire safety information. Ford already provides these elements to our customers on the certification label. What is needed is greater consumer education on the care and maintenance of tires by NHTSA before requiring the placement of a tire pressure label in a more conspicuous location.

Section D – Harmonization Issues

Q31)

What opportunities are there to accomplish the purposes of this rulemaking in ways that minimize any unnecessary differences between NTHSA tire labeling requirements and those of other countries?

A31)

In general, whenever regulatory differences are minimized, the consumer benefits from decreased costs and increased information consistency. We recommend that NHTSA take the lead to work with regulatory bodies from other countries to pursue common consumer information standards for tires.

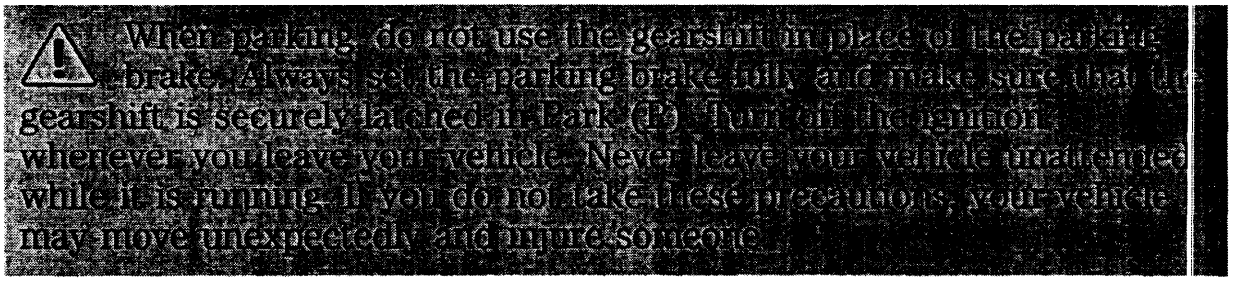
If you have any further questions regarding this response, please contact Sarah Kirkish 313-323-7383.

Sincerely,

James P. Vondale
Automotive Safety Office Director
Ford Motor Company

cc: Mr. George Soodoo
Mr. Joseph Scott
Docket Management, PL-401

Attachment I:
2001 Taurus Owner Guide
Selected Pages



VEHICLE LOADING

Before loading a vehicle, familiarize yourself with the following terms:

- **Base Curb Weight:** Weight of the vehicle including any standard equipment, fluids, lubricants, etc. It does not include passengers or aftermarket equipment.
- **Payload:** Combined maximum allowable weight of cargo, passengers and optional equipment. The payload equals the gross vehicle weight rating minus base curb weight.
- **GVW (Gross Vehicle Weight):** Base curb weight plus payload weight. The GVW is not a limit or a specification.
- **GVWR (Gross Vehicle Weight Rating):** Maximum total weight of the base vehicle, passengers, optional equipment and cargo. The GVWR is specific to each vehicle and is listed on the Safety Certification Label on the driver's door pillar.
- **GAWR (Gross Axle Weight Rating):** Carrying capacity for each axle system. The GAWR is specific to each vehicle and is listed on the Safety Certification Label on the driver's door pillar.
- **GCW (Gross Combined Weight):** The combined weight of the towing vehicle (including passengers and cargo) and the trailer.
- **GCWR (Gross Combined Weight Rating):** Maximum combined weight of towing vehicle (including passengers and cargo) and the trailer. The GCWR indicates the maximum loaded weight that the vehicle is designed to tow.
- **Maximum Trailer Weight Rating:** Maximum weight of a trailer the vehicle is permitted to tow. The maximum trailer weight rating is determined by subtracting the vehicle curb weight for each engine/transmission combination, any required option weight for trailer towing and the weight of the driver from the GCWR for the towing vehicle.

- **Maximum Trailer Weight:** Maximum weight of a trailer the loaded vehicle (including passengers and cargo) is permitted to tow. It is determined by subtracting the weight of the loaded trailer towing vehicle from the GCWR for the towing vehicle.
- **Trailer Weight Range:** Specified weight range that the trailer must fall within that ranges from zero to the maximum trailer weight rating.

Remember to figure in the tongue load of your loaded trailer when figuring the total weight.

⚠ Do not exceed the GVWR or the GAWR specified on the certification label.

Do not use replacement tires with lower load carrying capacities than the originals because they may lower the vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the originals do not increase the GVWR and GAWR limitations.

The Safety Certification Label, found on the driver's door pillar, lists several important vehicle weight rating limitations. Before adding any additional equipment, refer to these limitations. If you are adding weight to the front of your vehicle, (potentially including weight added to the cab), the weight added should not exceed the front axle reserve capacity (FARC). Additional frontal weight may be added to the front axle reserve capacity provided you limit your payload in other ways (i.e. restrict the number of passengers or amount of cargo carried).

Always ensure that the weight of passengers, cargo and equipment being carried is within the weight limitations that have been established for your vehicle including both gross vehicle weight and Front and rear gross axle weight rating limits. Under no circumstance should these limitations be exceeded. Exceeding any vehicle weight rating limitation could result in serious damage to the vehicle and/or personal injury.

DRIVING THROUGH WATER

Do not drive quickly through standing water, especially if the depth is unknown. Traction or brake capability may be limited and if the ignition system gets wet, your engine may stall. Water may also enter your engine's air intake and severely damage your engine.

If driving through deep or standing water is unavoidable, proceed very slowly. Never drive through water that is higher than the bottom of the hubs (for trucks) or the bottom of the wheel rims (for cars).

Once through the water, always try the brakes. Wet brakes do not stop the vehicle as effectively as dry brakes. Drying can be improved by moving your vehicle slowly while applying light pressure on the brake pedal.

Driving through deep water where the transmission vent tube is submerged may allow water into the transmission and cause internal transmission damage.

TRAILER TOWING

Your vehicle is classified as a light duty towing vehicle. The amount of weight you can safely tow depends on the type of engine you have in your vehicle. Your vehicle does not come from the factory fully equipped to tow. No towing packages are available through Ford or Mercury/ Lincoln dealers. Do not tow a trailer until your vehicle has been driven at least 800 km (500 miles). If towing with a station wagon, inflate the rear tires to 35 psi.

Towing a trailer places an additional load on your vehicle's engine, transaxle, brakes, tires and suspension. Inspect these components carefully after towing.

In order to identify your vehicle's engine, refer to *Identifying components in the engine compartment* in the Maintenance and Care chapter.

The amount of weight that you can tow depends on the type of engine in your vehicle. See the following charts:

3.0L 2-Valve Vulcan Engine			
Model	**Passenger Load - #/kg (lbs.)**	**Luggage Load - kg (lbs.)**	**Max Trailer Wt.- kg (lbs.)**
Sedan	5/340 (750)	0	365 (800)
	4/270 (600)	70 (150)	365 (800)
	2/135 (300)	70 (150)	500 (1 100)
	2/135 (300)	0	565 (1 250)
Wagon	4/270 (600)	0	365 (800)
	2/135 (300)	70 (150)	430 (950)
	2/135 (300)	0	500 (1 100)

The above chart is based on the specified vehicle at a maximum GCW (Vehicle weight + Trailer weight) equal to 2 245 kg (4 950 lbs.).

3.0L 4-Valve Duratec Engine			
Model	**Passenger Load - #/kg (lbs.)**	**Luggage Load - kg (lbs.)**	**Max Trailer Wt.- kg (lbs.)**
Sedan	5/340 (750)	0	590 (1 300)
	2/135 (300)	70 (150)	725 (1 600)
	2/135 (300)	0	795 (1 750)
Wagon	5/340 (750)	70 (150)	455 (1 000)
	2/135 (300)	70 (150)	660 (1 450)
	2/135 (300)	0	725 (1 600)

The above chart is based on the specified vehicle at a maximum GCW (Vehicle weight + Trailer weight) equal to 2 470 kg (5 450 lbs.).

Do not exceed the GVWR or the GAWR specified on the certification label.

Towing trailers beyond the maximum recommended gross trailer weight exceeds the limit of the vehicle and could result in engine damage, transaxle damage, structural damage, loss of control and personal injury.

Preparing to tow

Use the proper equipment for towing a trailer, and make sure it is properly attached to your vehicle. See your dealer or a reliable trailer dealer if you require assistance.

Hitches

Do not use hitches that clamp onto the vehicle bumper. Use a load carrying hitch. You must distribute the load in your trailer so that 10% of the total weight of the trailer is on the tongue.

Safety chains

Always connect the trailer's safety chains to the frame or hook retainers of the vehicle hitch. To connect the trailer's safety chains, cross the chains under the trailer tongue and allow slack for turning corners.

If you use a rental trailer, follow the instructions that the rental agency gives to you.

Do not attach safety chains to the bumper.

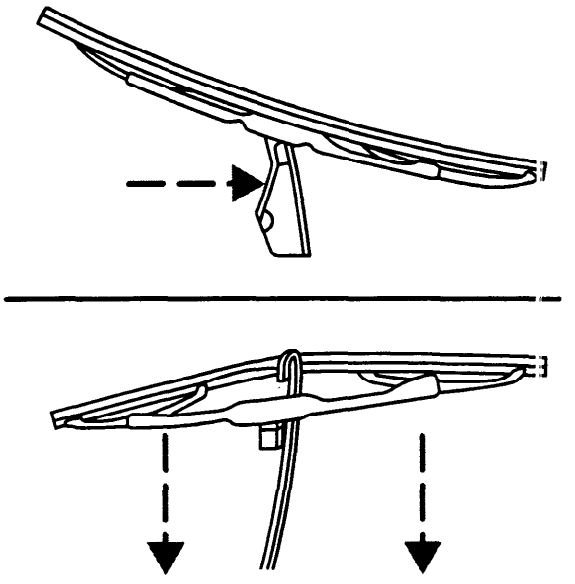
Changing the wiper blades

To replace the wiper blades:

1. Pull the wiper arm away from the windshield and lock into the service position.

2. Turn the blade at an angle from the wiper arm. Push the lock pin manually to release the blade and pull the wiper blade down toward the windshield to remove it from the arm.

3. Attach the new wiper to the wiper arm and press it into place until a click is heard.

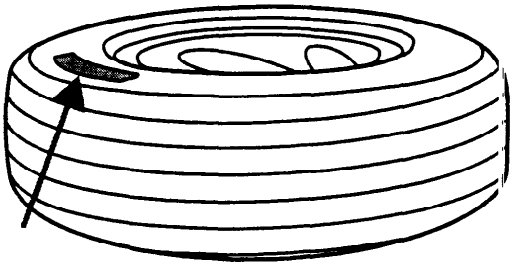


REAR WINDOW WIPER BLADES

Refer to *Windshield Wiper Blades* in this section for more information on rear wiper blades.

INFORMATION ABOUT UNIFORM TIRE QUALITY GRADING

New vehicles are fitted with tires that have a rating on them called Tire Quality Grades. The Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:



- **Treadwear 200 Traction AA Temperature A**

These Tire Quality Grades are determined by standards that the United States Department of Transportation has set.

Tire Quality Grades apply to new pneumatic tires for use on passenger cars. They do not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 10 to 12 inches or limited production tires as defined in Title 49 Code of Federal Regulations Part 575.104(c)(2).

U.S. Department of Transportation-Tire quality grades: The U.S. Department of Transportation requires Ford to give you the following information about tire grades exactly as the government has written it.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices, and differences in road characteristics and climate.

Traction AA A B C

The traction grades, from highest to lowest are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning or peak traction characteristics.

Temperature A B C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

SERVICING YOUR TIRES

Checking the tire pressure

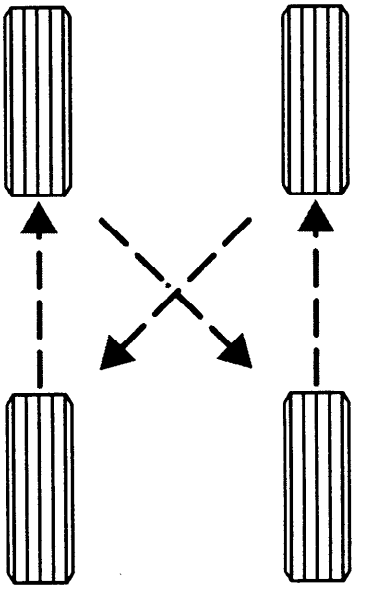
- Use an accurate tire pressure gauge.
- Check the tire pressure when tires are cold, after the vehicle has been parked for at least one hour or has been driven less than 5 km (3 miles).
- Adjust tire pressure to recommended specifications found on the Certification Label located on the driver's door panel.

Improperly inflated tires can affect vehicle handling and can fail suddenly, possibly resulting in loss of vehicle control.

Tire rotation

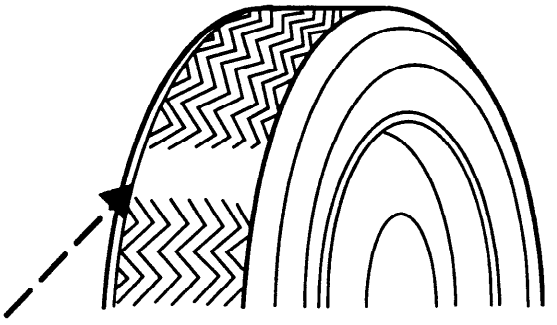
Because your vehicle's tires perform different jobs, they often wear differently. To make sure your tires wear evenly and last longer, rotate them as indicated in the scheduled maintenance guide. If you notice that the tires wear unevenly, have them checked.

- Four tire rotation



Replacing the tires

Replace the tires when the wear band is visible through the tire treads.



When replacing full size tires, never mix radial, bias-belted or bias-type tires. Use only the tire sizes that are listed on the Certification or Tire Label. Make sure that all tires are the same size, speed rating, and load carrying capacity. Use only the tire combinations recommended on the label. If you do not follow these precautions, your vehicle may not drive properly and safely.

Make sure that all replacement tires are of the same size, type, load carrying capacity and tread design (e.g., All Terrain, etc.) as originally offered by Ford.

Failure to follow these precautions may adversely affect the handling of the vehicle and make it easier for the driver to lose control and roll over.

Tires that are larger or smaller than your vehicle's original tires may also affect the accuracy of your speedometer.

SNOW TIRES AND CHAINS

Snow tires must be the same size and grade as the tires you currently have on your vehicle.

The tires on your vehicle have all weather treads to provide traction in rain and snow. However, in some climates, you may need to use snow tires and chains. If you need to use snow tires and chains, it is recommended that steel wheels are used of the same size and specifications as those originally installed.

Item	Information
Required fuel	Refer to "Octane recommendations" in the *Maintenance and care* chapter.
Fuel tank capacity	68.1L (18 gallons)
Engine oil capacity (including filter change)-3.0L V6 Vulcan engine	4.25L (4.5 quarts). Use Motorcraft SAE 5W-20 Super Premium Motor Oil, Ford specification WSS-M2C153-H.
Engine oil capacity (including filter change)-3.0L DOHC V6 Duratec engine	5.2L (5.5 quarts). Use Motorcraft SAE 5W-20 Super Premium Motor Oil, Ford specification WSS-M2C153-H.
Tire size and pressure	Refer to Certification Label located on driver's side door panel. Inflate temporary spare to 414 kPa (60 psi).
Hood release	Pull handle under the left side of the instrument panel.
Coolant capacity (3.0L V6 Vulcan engine)[1]	11.0L (11.6 quarts)
Coolant capacity (3.0L DOHC V6 Duratec engine)[1]	10.0L (10.6 quarts)
Power steering fluid capacity-3.0L V6 Vulcan engine	Keep in FULL range on dipstick.
Power steering fluid capacity-3.0L DOHC V6 Duratec engine	Fill to line on reservoir.
Automatic transaxle capacity (4F50N)-3.0L V6 Vulcan engine[2]	12.8L (13.5 quarts). Use Motorcraft MERCON®V ATF.
Automatic transaxle capacity (4F50N)-3.0L DOHC V6 Duratec engine[2]	12.7L (13.4 quarts). Use Motorcraft MERCON®V ATF.
Automatic transaxle capacity (AX4S)-3.0L V6 Vulcan engine[2]	11.6L (12.2. quarts). Use Motorcraft MERCON®V ATF.

Attachment II:
2001 F-150 Owner Guide
Selected Pages

Automatic transmissions may shift frequently while driving up steep grades. Eliminate frequent shifting by shifting out of (D) (Overdrive) into a lower gear.

Driving on snow and ice

A 4WD vehicle has advantages over 2WD vehicles in snow and ice but can skid like any other vehicle.

Avoid sudden applications of power and quick changes of direction on snow and ice. Apply the accelerator slowly and steadily when starting from a full stop.

When braking, apply the brakes as you normally would. In order to allow the anti-lock brake system (ABS) to operate properly, keep steady pressure on the brake pedal.

Allow more stopping distance and drive slower than usual. Consider using one of the lower gears.

VEHICLE LOADING

Before loading a vehicle, familiarize yourself with the following terms:

- **Base Curb Weight:** Weight of the vehicle including any standard equipment, fluids, lubricants, etc. It does not include passengers or aftermarket equipment.
- **Payload:** Combined maximum allowable weight of cargo, passengers and optional equipment. The payload equals the gross vehicle weight rating minus base curb weight.
- **GVW (Gross Vehicle Weight):** Base curb weight plus payload weight. The GVW is not a limit or a specification.
- **GVWR (Gross Vehicle Weight Rating):** Maximum total weight of the base vehicle, passengers, optional equipment and cargo. The GVWR is specific to each vehicle and is listed on the Safety Certification Label on the driver's door pillar.
- **GAWR (Gross Axle Weight Rating):** Carrying capacity for each axle system. The GAWR is specific to each vehicle and is listed on the Safety Certification Label on the driver's door pillar.
- **GCW (Gross Combined Weight):** The combined weight of the towing vehicle (including passengers and cargo) and the trailer.

- **GCWR (Gross Combined Weight Rating):** Maximum combined weight of towing vehicle (including passengers and cargo) and the trailer. The GCWR indicates the maximum loaded weight that the vehicle is designed to tow.
- **Maximum Trailer Weight Rating:** Maximum weight of a trailer the vehicle is permitted to tow. The maximum trailer weight rating is determined by subtracting the vehicle curb weight for each engine/ transmission combination, any required option weight for trailer towing and the weight of the driver from the GCWR for the towing vehicle.
- **Maximum Trailer Weight:** Maximum weight of a trailer the loaded vehicle (including passengers and cargo) is permitted to tow. It is determined by subtracting the weight of the loaded trailer towing vehicle from the GCWR for the towing vehicle.
- **Trailer Weight Range:** Specified weight range that the trailer must fall within that ranges from zero to the maximum trailer weight rating.

Remember to figure in the tongue load of your loaded trailer when figuring the total weight.

Do not exceed the GVWR or the GAWR specified on the certification label.

Do not use replacement tires with lower load carrying capacities than the originals because they may lower the vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the originals do not increase the GVWR and GAWR limitations.

The Safety Certification Label, found on the driver's door pillar, lists several important vehicle weight rating limitations. Before adding any additional equipment, refer to these limitations. If you are adding weight to the front of your vehicle, (potentially including weight added to the cab), the weight added should not exceed the front axle reserve capacity (FARC). Additional frontal weight may be added to the front axle reserve capacity provided you limit your payload in other ways (i.e. restrict the number of passengers or amount of cargo carried).

Always ensure that the weight of passengers, cargo and equipment being carried is within the weight limitations that have been established for your vehicle including both gross vehicle weight and Front and rear gross axle weight rating limits. Under no circumstance should these limitations be exceeded. Exceeding any vehicle weight rating limitation could result in serious damage to the vehicle and/or personal injury.

Special loading instructions for owners of pickup trucks and utility-type vehicles

For important information regarding safe operation of this type of vehicle, see the Preparing to drive your vehicle section in the Driving chapter of this owner guide.

Loaded vehicles with a higher center of gravity may handle differently than unloaded vehicles. Extra precautions such as slower speeds and increased stopping distance should be taken when driving a heavily loaded vehicle.

Your vehicle has the capability to haul more cargo and people than most passenger cars. Depending upon the type and placement of the load, hauling cargo and people may raise the center of gravity of the vehicle.

Calculating the load your vehicle can carry/tow

1. Use the appropriate maximum gross combined weight rating (GCWR) chart to find the maximum GCWR for your type engine and rear axle ratio.

2. Weigh your vehicle as you customarily operate the vehicle without cargo. To obtain correct weights, try taking your vehicle to a shipping company or an inspection station for trucks.

3. Subtract your loaded vehicle weight from the maximum GCWR on the following charts. This is the maximum trailer weight your vehicle can tow and must fall below the maximum shown under maximum trailer weight on the chart.

DRIVING THROUGH WATER

Do not drive quickly through standing water, especially if the depth is unknown. Traction or brake capability may be limited and if the ignition system gets wet, your engine may stall. Water may also enter your engine's air intake and severely damage your engine.

If driving through deep or standing water is unavoidable, proceed very slowly. Never drive through water that is higher than the bottom of the hubs (for trucks) or the bottom of the wheel rims (for cars).

Once through the water, always try the brakes. Wet brakes do not stop the vehicle as effectively as dry brakes. Drying can be improved by moving your vehicle slowly while applying light pressure on the brake pedal.

Driving through deep water where the transmission vent tube is submerged may allow water into the transmission and cause internal transmission damage.

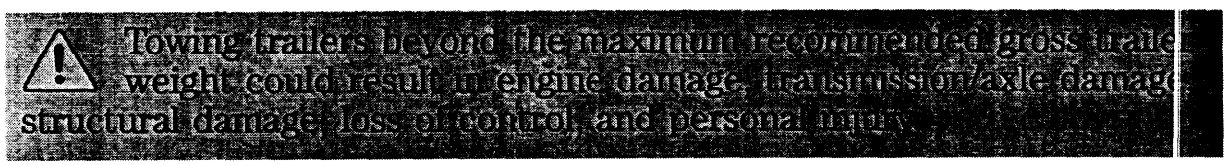
TRAILER TOWING

Your vehicle may tow a class I, II or III trailer provided the maximum trailer weight is less than or equal to the maximum trailer weight listed for your engine and rear axle ratio on the following charts.

Your vehicle's load capacity is designated by weight, not by volume, so you cannot necessarily use all available space when loading a vehicle.

Towing a trailer places an additional load on your vehicle's engine, transmission, axle, brakes, tires and suspension. Inspect these components carefully after any towing operation.

Exceeding the maximum GCWR could result in extensive damage to your vehicle and personal injury.



Engine	Rear axle ratio	Maximum GCWR-kg (lbs.)	Maximum trailer weight-kg (lbs.)
Regular Cab 4x2 w/automatic transmission			
4.2L	3.31	4 077 (9 000)	2 177 (4 800)
4.2L	3.55	4 530 (10 000)	2 582 (5 800)
4.6L	3.08	4 530 (10 000)	907 (2 000)
4.6L	3.31	4 763 (10 500)	2 812 (6 200)
4.6L	3.55	5 209 (11 500)	3 261 (7 200)
5.4L	3.31	5 443 (12 000)	3 402 (7 500)
5.4L	3.55	5 897 (13 000)	3 856 (8 500)
5.4L	3.73	6 124 (13 500)	3 992 (8 800)

Engine	Rear axle ratio	Maximum GCWR-kg (lbs.)	Maximum trailer weight-kg (lbs.)
SuperCab/Super Crew 4x2 w/automatic transmission			
4.2L	3.55	4 530 (10 000)	2 495 (5 500)
4.6L	3.08	4 530 (10 000)	907 (2 000)
4.6L	3.31	4 763 (10 500)	2 676 (5 900)
4.6L	3.55	5 216 (11 500)	3 130 (6 900)/ 2 994 (6 600)
5.4L	3.31	5 443 (12 000)	3 311 (7 300)
5.4L	3.55	5 897 (13 000)	3 765 (8 300)/ 3 628 (8 000)
5.4L	3.73	6 124 (13 500)	3 946 (8 700)

Harley-Davidson F-150 4x2 w/automatic transmission			
Engine	**Rear axle ratio**	**Maximum GCWR-kg (lbs.)**	**Maximum trailer weight-kg (lbs.)**
5.4L	3.73	4 500 (10 000)	1 825 (4 000)

Engine	Rear axle ratio	Maximum GCWR-kg (lbs.)	Maximum trailer weight-kg (lbs.)
Regular Cab 4x2 w/manual transmission			
4.2L	3.08	2 944 (6 500)	907 (2 000)
4.2L	3.55	3 538 (7 800)	1 633 (3 600)
4.6L	3.08	2 944 (6 500)	907 (2 000)
4.6L	3.31	2 944 (6 500)	998 (2 200)
4.6L	3.55	3 538 (7 800)	1 588 (3 500)
SuperCab 4x2 w/manual transmission			
4.2L	3.08	2 944 (6 500)	907 (2 000)
4.2L	3.55	3 538 (7 800)	1 497 (3 300)
4.6L	3.08	2 944 (6 500)	907 (2 000)
4.6L	3.31	2 948 (6 500)	862 (1 900)
4.6L	3.55	3 538 (7 800)	1452 (3 200)

Engine	Rear axle ratio - cm (inches)	Maximum GCWR-kg (lbs.)	Maximum trailer weight-kg (lbs.)
Regular Cab 4x4 w/automatic transmission			
4.2L	3.55/40.6 (16)	4 536 (10 000)	2 449 (5 400)
4.6L	3.31/40.6 (16)	4 763 (10 500)	2 630 (5 800)
4.6L	3.55/40.6 (16)	5 216 (11 500)	3 084 (6 800)
4.6L	3.55/43.2 (17)	4 990 (11 000)	2 858 (6 300)
5.4L	3.31/40.6 (16)	5 443 (12 000)	3 266 (7 200)
5.4L	3.55/40.6 (16)	5 897 (13 000)	3 720 (8 200)
5.4L	3.55/43.2 (17)	5 670 (12 500)	3 493 (7 700)
5.4L	3.73/40.6 (16)	6 124 (13 500)	3 810 (8 400)
SuperCab /Super Crew 4x4 w/automatic transmission			
4.6L	3.31/40.6 (16)	4 763 (10 500)	2 540 (5 600)
4.6L	3.55/40.6 (16)	5 216 (11 500)	2 994 (6 600)/ 2 857 (6 300)
4.6L	3.55/43.2 (17)	4 990 (11 000)	2 767 (6 100)/ 2 630 (5 800)
5.4L	3.31/40.6 (16)	5 443 (12 000)	3 130 (6 900)
5.4L	3.55/40.6 (16)	5 897 (13 000)	3 583 (7 900)/ 3 492 (7 700)
5.4L	3.55/43.2 (17)	5 670 (12 500)	3 357 (7 400)/ 3 265 (7 200)
5.4L	3.73/40.6 (16)	6 124 (13 500)	3 765 (8 300)

Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs.)
Regular Cab 4x4 w/manual transmission			
4.2L	3.31	2 948 (6 500)	862 (1 900)
4.2L	3.55	3 538 (7 800)	1 452 (3 200)
4.6L	3.31	2 944 (6 500)	816 (1 800)
4.6L	3.55	3 538 (7 800)	1 406 (3 100)
SuperCab 4x4 w/manual transmission			
4.6L	3.31	2 948 (6 500)	726 (1 600)
4.6L	3.55	3 533 (7 800)	1 315 (2 900)

Trailer frontal area considerations:

- Not to exceed towing vehicle front area without Class III trailer towing package
- Not to exceed 5.52 square meters (60 square feet) with Class III trailer towing package

Preparing to tow

Use the proper equipment for towing a trailer, and make sure it is properly attached to your vehicle. See your dealer or a reliable trailer dealer if you require assistance.

Hitches

Do not use hitches that clamp onto the vehicle's bumper or attach to the axle. You must distribute the load in your trailer so that 10%–15% of the total weight of the trailer is on the tongue.

Load equalizing hitch

When hooking up a trailer using a load equalizing hitch, always use the following procedure:

1. Park the unloaded vehicle on a level surface. With the ignition on and all doors closed, allow the vehicle to stand for several minutes so that it can level.

2. Measure the height of a reference point on the front and rear bumpers at the center of the vehicle.

3. Attach the trailer to the vehicle and adjust the hitch equalizers so that the front bumper height is within 0–13 mm (0.5 in) of the reference point. After proper adjustment, the rear bumper should be no higher than in Step 3.

Adjusting an equalizing hitch so the rear bumper of the vehicle is lower or higher than it was unloaded will defeat the function of the load equalizing hitch and may cause unpredictable handling.

Safety chains

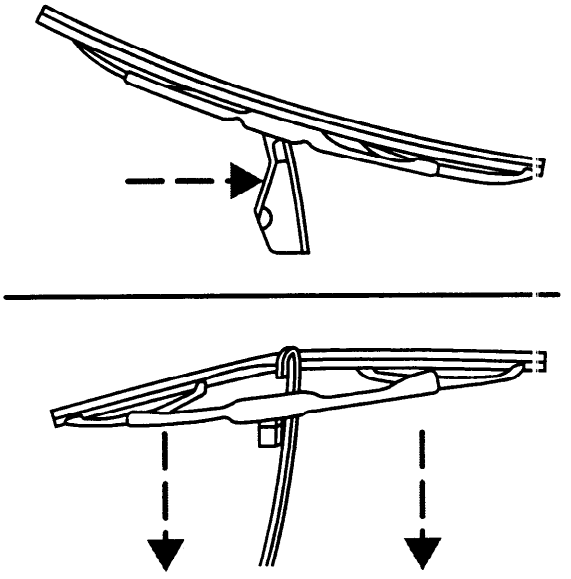
Always connect the trailer's safety chains to the frame or hook retainers of the vehicle. To connect the trailer's safety chains, cross the chains under the trailer tongue and allow slack for turning corners.

If you use a rental trailer, follow the instructions that the rental agency gives to you.

Changing the wiper blades

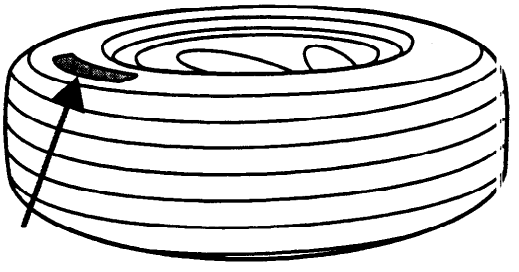
To replace the wiper blades:

1. Pull the wiper arm away from the windshield and lock into the service position.
2. Turn the blade at an angle from the wiper arm. Push the lock pin manually to release the blade and pull the wiper blade down toward the windshield to remove it from the arm.
3. Attach the new wiper to the wiper arm and press it into place until a click is heard.



INFORMATION ABOUT UNIFORM TIRE QUALITY GRADING

New vehicles are fitted with tires that have a rating on them called Tire Quality Grades. The Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:



- **Treadwear 200 Traction AA Temperature A**

These Tire Quality Grades are determined by standards that the United States Department of Transportation has set.

Tire Quality Grades apply to new pneumatic tires for use on passenger cars. They do not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 10 to 12 inches or limited production tires as defined in Title 49 Code of Federal Regulations Part 575.104(c)(2).

U.S. Department of Transportation-Tire quality grades: The U.S. Department of Transportation requires Ford to give you the following information about tire grades exactly as the government has written it.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices, and differences in road characteristics and climate.

Traction AA A B C

The traction grades, from highest to lowest are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

The traction grade assigned to this tire is based on straight-ahead braking traction tests and does not include acceleration, cornering, hydroplaning or peak traction characteristics.

Temperature A B C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

SERVICING YOUR TIRES

Checking the tire pressure

- Use an accurate tire pressure gauge.
- Check the tire pressure when tires are cold, after the vehicle has been parked for at least one hour or has been driven less than 5 km (3 miles).
- Adjust tire pressure to recommended specifications found on the Certification Label inside of driver's door.

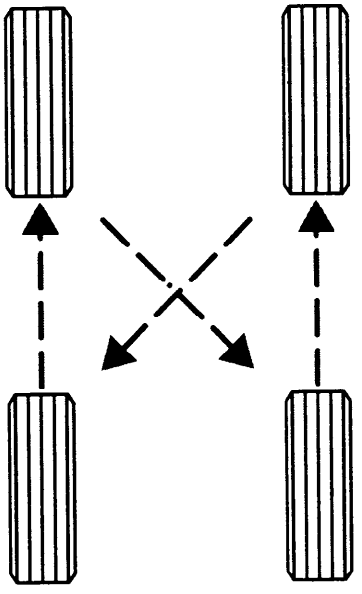
Improperly inflated tires can affect vehicle handling and can fail suddenly, possibly resulting in loss of vehicle control.

Tire rotation

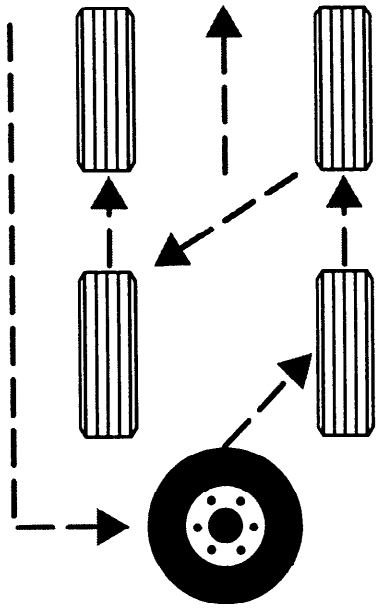
Because your vehicle's tires perform different jobs, they often wear differently. To make sure your tires wear evenly and last longer, rotate them as indicated in the scheduled maintenance guide. If you notice that the tires wear unevenly, have them checked.

The following procedure applies to vehicles equipped with single rear wheels, if your vehicle is equipped with dual rear wheels it is recommended that only the front wheels be rotated (side to side).

- Four tire rotation

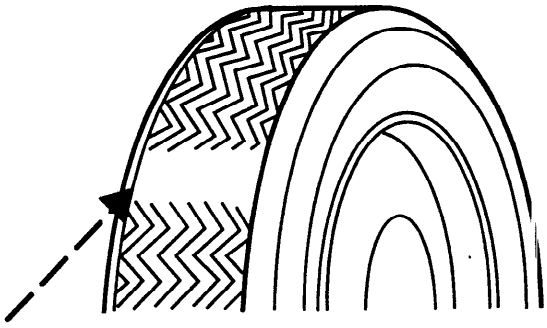


- Five tire rotation



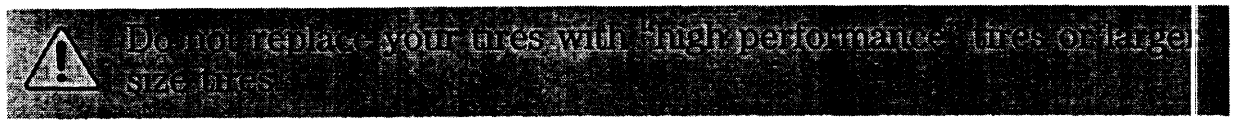
Replacing the tires

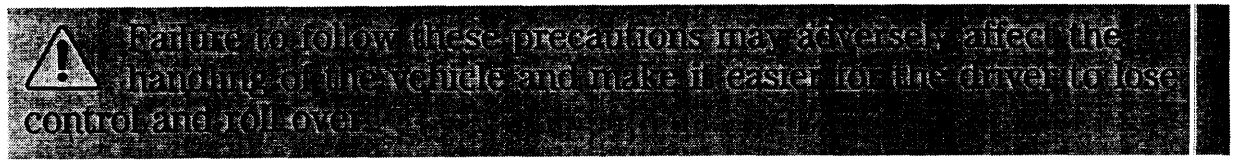
Replace the tires when the wear band is visible through the tire treads.



When replacing full size tires, never mix radial, bias-belted, or bias-type tires. Use only the tire sizes that are listed on the Certification Label. Make sure that all tires are the same size, speed rating, and load-carrying capacity. Use only the tire combinations recommended on the label. If you do not follow these precautions, your vehicle may not drive properly and safely.

Make sure that all replacement tires are of the same size, type, load-carrying capacity and tread design (e.g., All Terrain, etc.) as originally offered by Ford.





Tires that are larger or smaller than your vehicle's original tires may also affect the accuracy of your speedometer.

SNOW TIRES AND CHAINS

The tires on your vehicle have all weather treads to provide traction in rain and snow. However, in some climates, you may need to use snow tires and chains. If you need to use chains, it is recommended that steel wheels (of the same size and specifications) be used as chains may chip aluminum wheels.

Follow these guidelines when using snow tires and chains:

- Use only SAE Class S chains.
- Install chains securely, verifying that the chains do not touch any wiring, brake lines or fuel lines.
- Drive cautiously. If you hear the chains rub or bang against your vehicle, stop and re-tighten the chains. If this does not work, remove the chains to prevent damage to your vehicle.
- If possible, avoid fully loading your vehicle.
- Remove the tire chains when they are no longer needed. Do not use tire chains on dry roads.
- The suspension insulation and bumpers will help prevent vehicle damage. Do not remove these components from your vehicle when using snow tires and chains.

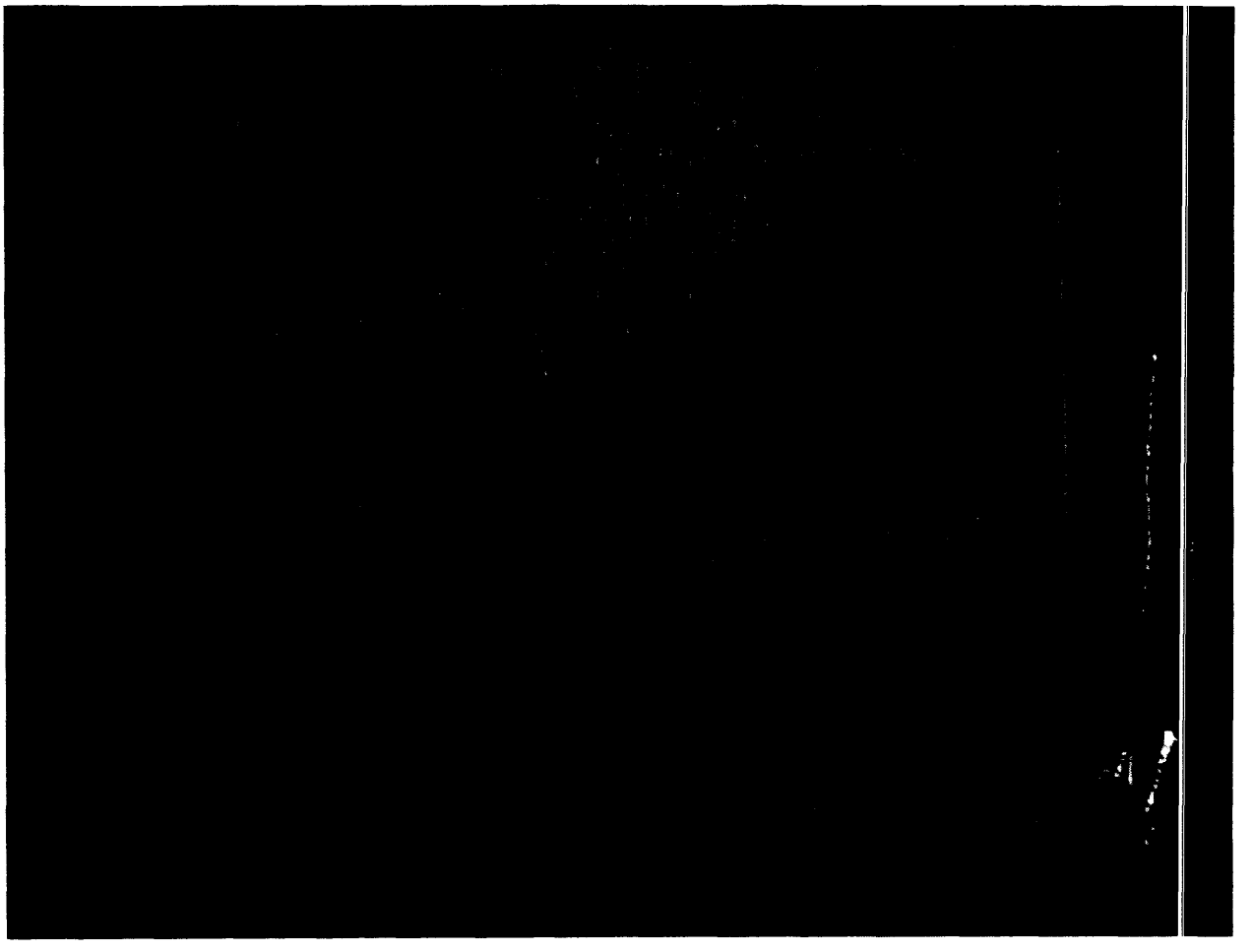
Item	Information
Required fuel	Unleaded fuel only - 87 octane
Fuel tank capacity-4 x 4 Regular cab with short wheelbase	92.7L (24.5 gallons)
Fuel tank capacity-4 x 2 Regular cab, SuperCab and SuperCrew with short wheelbase	94.6L (25.0 gallons)
Fuel tank capacity-All long wheelbase	113.6L (30.0 gallons)
Engine oil (includes filter change)	5.7L (6.0 quarts). Use Motorcraft SAE 5W-20 Super Premium Motor Oil, Ford specification WSS-M2C153-H.
Tire size and pressure	Refer to the Certification Label inside of drivers's door.
Hood release	Pull handle under the left side of the instrument panel.
Coolant capacity [1]	Refer to *Refill capacities* in the *Capacities and specifications* chapter.
Power steering fluid capacity	Fill to line on reservoir. Use Motorcraft MERCON® ATF.
Transmission fluid capacity [2]	Refer to *Refill capacities* in the *Capacities and specifications* chapter.

[1] Use Ford Premium Engine Coolant (green or yellow in color)(yellow in color). DO NOT USE Ford Extended Life Engine Coolant (orange in color). Refer to *Adding engine coolant, in the Maintenance and Care chapter.*

[2] Ensure the correct automatic transmission fluid is used. Transmission fluid requirements are indicated on the dipstick or on the dipstick handle. Check the container to verify the fluid being added is of the correct type. Refer to your scheduled maintenance guide to determine the correct service interval.

Some transmission fluids may be labeled as dual usage, such as MERCON® and MERCON® V. These dual usage fluids are not to be used

Attachment III:
2001 Taurus Certification Label



Attachment IV:
2001 Focus Tire Pressure Information Label

focus — **RECOMMENDED TIRE SIZE AND INFLATION PRESSURE (COLD)** / ***DIMENSIONS DES PNEUS et PRESSIONS DE GONFLAGE RECOMMANDÉES (À FROID)*** — **A**

TIRE SIZE *DIMENSIONS DES PNEUS*	LOAD RANGE *CHARGE NOMINALE*	*PRESSION* PRESSURE	
		AVANT FRONT	*ARRIÈRE* REAR
P185/65 R14 85S* **	ALL	*221 kpa* / 32 PSI	*221 kpa* / 32 PSI
P195/60 R15 87T*	ALL	*221 kpa* / 32 PSI	*221 kpa* / 32 PSI
P205/50 R16 86H*	ALL	*234 kpa* / 34 PSI	*234 kpa* / 34 PSI
T125/80 R15 95M* TEMPORAL SPARE *PNEU DE SECOURS PROVISOIRE*	ALL	*415 kpa* / 60 PSI	*415 kpa* / 60 PSI

*MUST BE REPLACED WITH AN EQUIVALENT TYPE SPEED RATED TIRE. **SNOW CHAINS MAY ONLY BE USED WITH THIS TIRE.
*NE REMPLACER QUE PAR UN PNEU DONT L'INDICE DE VITESSE EST LE MEME. **N'UTILISER DES CHAÎNES À NEIGE QU'AVEC CE TYPE DE PNEU.

TOTAL LOAD = OCCUPANTS PLUS LUGGAGE *CHARGE TOTALE = OCCUPANTS PLUS BAGAGES*

MAXIMUM LOAD *CHARGE MAXIMALE*	OCCUPANTS *OCCUPANTS*	DISTRIBUTION *RÉPARTITION*		
		FRONT *AVANT*	REAR *ARRIÈRE*	LUGGAGE *BAGAGES*
375 kg/826.7 lb	5	2	3	35 kg/77.2 lb

FOR SUSTAINED HIGH SPEED, TRAILER TOWING, RECREATIONAL ACCESSORIES, SNOW CHAINS OR TEMPORAL SPARE INFORMATION - SEE OWNER GUIDE.
HAUTES VITESSES SOUTENUES, REMORQUES, ACCESSOIRES DE LOISIRS, CHAÎNES À NEIGE ET PNEU DE SECOURS PROVISOIRE : CONSULTER LE GUIDE DU PROPRIÉTAIRE.

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Attachment V:
2001 Scheduled Maintenance Guide
Selected Pages

Refer to Mileage Intervals for Additional Checks and Services

Certain basic maintenance checks and inspections should be performed by the owner or a service technician at the intervals indicated. Service information and supporting specifications are provided in the Owner's Guide.
Any adverse condition should be brought to the attention of your dealer or qualified service technician as soon as possible for the proper service advice. The owner maintenance service checks are generally not covered by warranties so you may be charged for labor, parts or lubricants used.

✔ **Check Every Month for All Vehicles:**

- ○ Check function of all interior and exterior lights
- ○ **Check tires for wear and proper air pressure** *1*
- ○ Check engine oil fluid level
- ○ Check windshield washer solvent fluid level
- ○ *Check and drain fuel/water separator (diesel vehicles)*

Owner Checks and Services

✔	Check Every Six Months for All Vehicles:
○	Check lap/shoulder belts and seat latches for wear and function
○	Check air pressure in spare tire
○	Check power steering fluid level
○	Check washer spray, wiper operation, and clean all wiper blades
○	Check parking brake for proper operation
○	Check and lubricate all hinges, latches and outside locks
○	Check and lubricate door rubber weatherstrips
○	Check and clean body and door drain holes
○	Check safety warning lamps (brake, ABS, air bag, safety belt) for operation
○	Check cooling system fluid level and coolant strength
○	Check battery connections and clean if necessary
○	Check clutch fluid level, if equipped

✔	5,000 Miles
○	*Adjust clutch by lifting pedal (manual transmission Mustang only) (see Owner Guide)*

Normal Schedule

5,000 miles

	Cars, Minivans, Light Trucks, Sport Utilities, Vans, 4x4, Natural Gas, Propane, and Diesel Vehicles

- ○ Change engine oil and replace oil filter
- ○ Inspect tires for wear and rotate

Diesel	Additional services for: Diesel

- ○ Check air filter minder, replace filter as required

10,000 miles

	Cars, Minivans, Light Trucks, Sport Utilities, Vans, 4x4, Natural Gas, Propane, and Diesel Vehicles

- ○ Change engine oil and replace oil filter
- ○ Inspect tires for wear. Rotation recommended for optimal tire life.

Diesel	Additional services for: Diesel

- ○ Check air filter minder, replace filter as required

Normal Schedule

- ○ Inspect steering linkage, suspension, and if equipped driveshaft and ball joints
- ○ **Inspect tires for wear and rotate**
- ○ Replace engine air filter
- ○ Replace fuel filter*
- ○ Replace cabin air filter, if equipped
- ○ Change orange engine coolant, if equipped
- ○ Change automatic transmission/transaxle fluid and filter
- ○ Change rear axle lubricant on all rear wheel drive (RWD) vehicles (See page 34)
- ○ Replace accessory drive belt(s) (if not replaced within last 100,000 miles)
- ○ *Replace climate-controlled seat filters (Navigator and Blackwood, if equipped)*

Additional services for: Light Trucks, Sport Utilities, and Vans

- ○ Inspect and lubricate 4X2 ball joints (except F-450/F-550)
- ○ Replace 4X2 wheel bearings and grease seals, lubricate and adjust bearings
- ○ *Inspect and lubricate steering linkage (E and F Series, Expedition, Navigator, Excursion)*

Additional services for: 4x4

- ○ Change front axle lubricant (See page 34)
- ○ Change transfer case fluid

Diesel

Additional services for: Diesel

- ○ Check air filter minder, replace filter as required
- ○ Replace fuel filter
- ○ Add 8 to 10 oz. of FW16 coolant conditioner to cooling system

*If vehicle is registered in California, the California Air Resources Board has determined that the failure to perform this maintenance item will not nullify the emission warranty or limit recall liability prior to the completion of the vehicle's useful life. We, however, urge that all recommended maintenance services be performed at the indicated intervals and the maintenance be recorded.